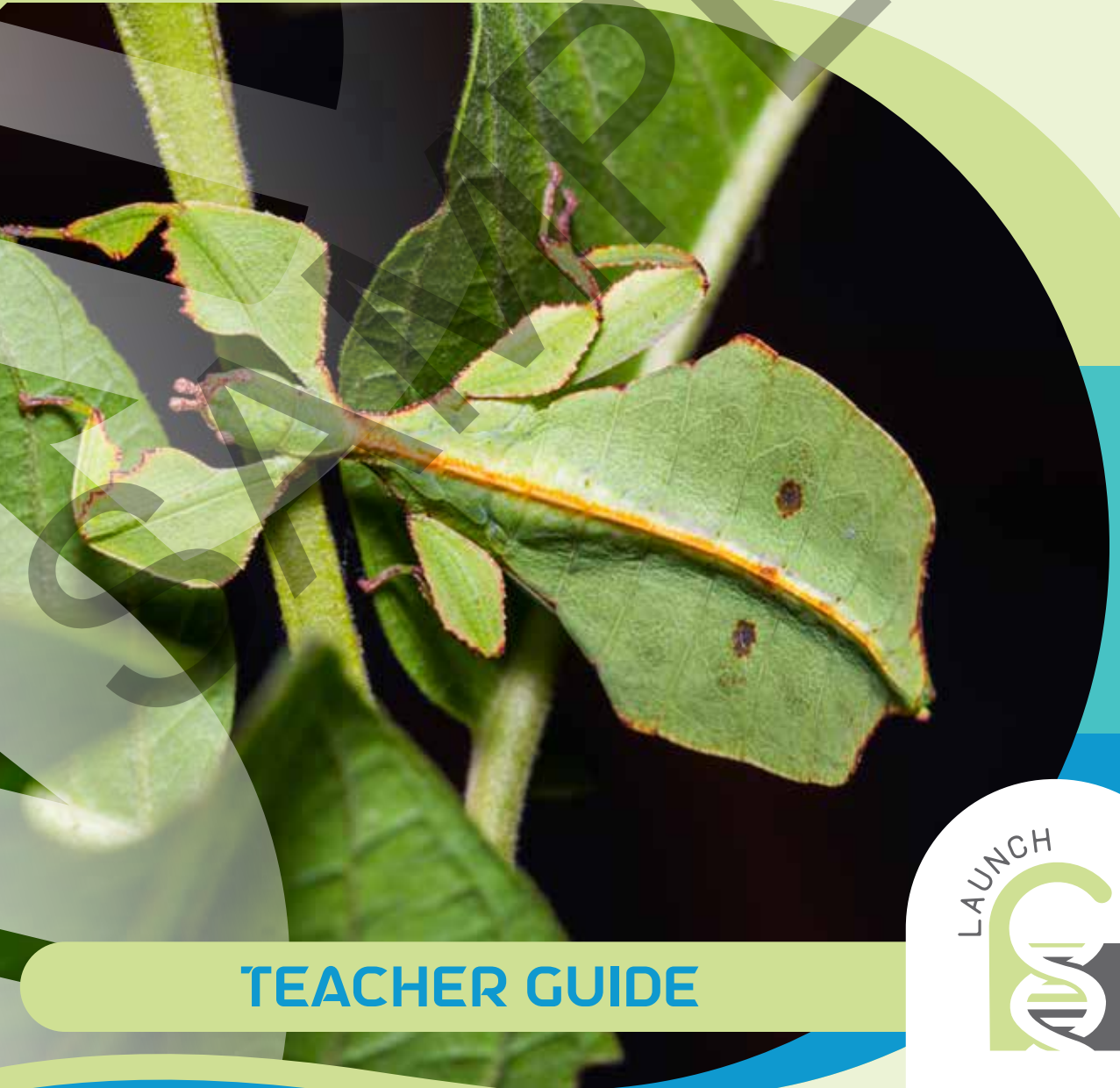


GAME OF SURVIVAL



TEACHER GUIDE

LAUNCH



PLANNING

Here's a suggested schedule for this kit! The activities should be completed in order, but you can choose when the lessons take place over time.

ACTIVITY INFORMATION	SECTION (S)	TIME REQUIRED	DAY/ LESSON
ACTIVITY 1: ISLAND LIFE Discover the impact of an organism's traits on its survival. Total time: 1 h 30 min	<input type="checkbox"/> Survival Game	90 minutes	Day 1
ACTIVITY 2: FOUNDATIONAL FINCHES Begin to understand the organisms that were the original model for natural selection. Total time: 2 h	<input type="checkbox"/> Natural Selection	45 minutes	Day 2
	<input type="checkbox"/> Beak Shapes		
	<input type="checkbox"/> What Can They Eat?	45 minutes	Day 3
ACTIVITY 3: WHAT IN THE WING IS THAT? Comparative morphology helps us understand the similarities between species that seem drastically different. Total time: 1 h 45 min	<input type="checkbox"/> Understanding Data	30 minutes	Day 4
	<input type="checkbox"/> Models of Mammal Hands	60 minutes	Day 5
ACTIVITY 4: GOING BACK TO THE GALAPAGOS Develop a model for determining how food availability impacts survival and adaptations. Total time: 2 h 30 min	<input type="checkbox"/> Designed to Fly	45 minutes	Day 6
	<input type="checkbox"/> Morphology		Day 7

SAMPLE

Full schedule available with purchase

14+ hours

1

activity

ISLAND LIFE

An organism's survival is significantly impacted by its traits. Whether or not those traits are passed on to offspring impacts the future of the species.

In this activity, students will customize their own game to see which subspecies survive best and how well they are adapted to their ecosystem.

SURVIVAL GAME

PREPARATION AND SUPERVISION

- Drawing their game board should be a fun experience. There is no right or wrong way to place the biomes on their mat; having them spaced out evenly will help them visually.
- Encourage students to fully color their game board, like a game board from a store would be.
- If your student enjoys their game and would want to continue playing, you may want to laminate the board to reduce the wear on the paper.

? PREDICT - Question 1: Which bead subspecies do you think is most suited for its habitat? Why?

Answer: Encourage your student to think about the traits they gave to each of their four organisms. You can prompt them to think about how the traits might work together or where they have seen those traits lead to success in the wild. Make sure students go past guessing to think critically about their response.

? Question 2: Which bead subspecies do you think is least suited for its habitat? Why?

Answer: Students should think critically rather than making a guess about which traits can be a detriment to species in the wild. You can prompt them to think about whether they gave conflicting traits to the same bead subspecies.

? Question 3: What do you think the outcome of the game will be?

Answer: Students may not know how best to answer this question, but it is intended to encourage them to think about what they might be getting ready to learn about.

How to Help: *If they struggle, encourage them to refer back to their responses to the first two questions to assist them in how habitat suitability impacts the outcome of life.*

• *You can also encourage them to think about the name of their game – Survival Game – to assist them in answering the question.*

3 TIME TO PLAY

PREPARATION AND SUPERVISION

- Make sure students save the masking tape for Activity 3, the red beads for Activity 4, the green and blue beads for Activity 6, and their game board for Activity 7. You may also want them to save their yellow beads for an extension activity in Activity 8.

UNDERSTANDING DATA

• If your student suggests migration, remind them that there are no insects left on the planet. While this wouldn't be an incorrect answer if only one area lost insects, losing them world-wide does make it incorrect.

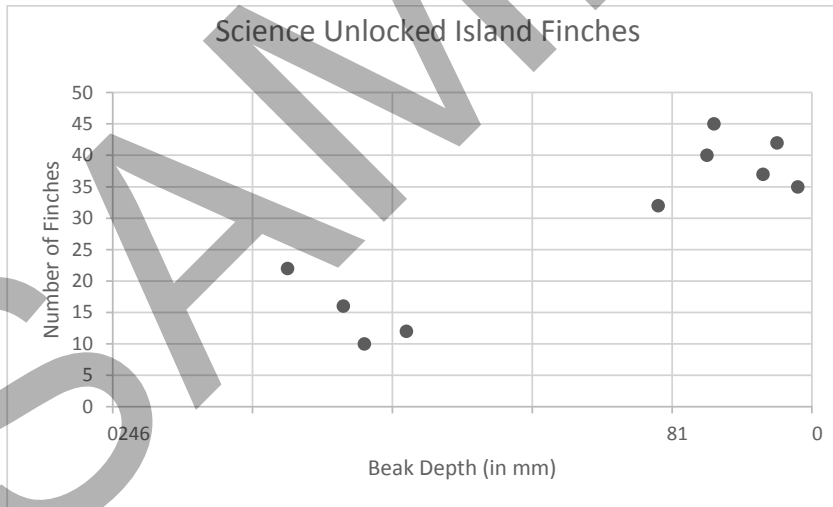
? Question 1: We are going to take a trip to Science Unlocked Island! Use the data set to answer the following questions about Science Unlocked Island Finches.

Beak Depth (in mm)	Number of Finches
9.8	35
8.5	40
9.3	37
4.2	12
2.5	22
3.6	10
3.3	16
7.8	32
8.6	45
9.5	42

? 1a. Create a scatter plot depicting the data provided where number of finches is the y-axis and beak depth (in mm) is the x-axis.

Answer:

• Your student's scatter plot should look similar to this:



? 1b. What is the average beak depth of finches found on Science Unlocked Island?

Answer: The average beak depth of finches found on Science Unlocked Island is 7.8 mm. Your student's response should be close, taking into account rounding rules.

? 1c. Assuming the food sources available to finches were small or large seeds, which type of seed would be most commonly found on Science Unlocked Island? Explain.

Answer: Because there are more finches with large beak depths, large seeds would be found more commonly on Science Unlocked Island. If there were more finches with smaller beak depths, then it could be assumed that small seeds were found more commonly on the island.



SCIENCE UNLOCKED

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